Managing the acute psychotic episode

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People with a first or recurrent psychotic episode tend to present late for medical attention, and many do not present at all. Presentation is often initiated by others, not by patients themselves. Psychosis can also become apparent during a manic presentation, when patients act on their delusions in a public forum, or when they have the complications of substance misuse. Patients who experience intolerable symptoms (distressing delusions or voices; box 1) often seek medical help. In emergency settings, family members' concerns contrast with the patient's apparent indifference. The highest risk of suicide in people with schizophrenia occurs during the first five years of illness ("the critical period"), and interventions are most fruitful during this time. Importantly, patients experiencing their first episode should quickly be given competent assessments and access to appropriate services.

Sources and selection criteria

I searched HighWire and PubMed from 2002 to October 2006 for randomised controlled trials and systematic reviews of treatments for psychosis and schizophrenia. I reviewed the Cochrane Database of Systematic Reviews using both terms, across the age spans. Influential articles, key texts, and published treatment guidelines are also included.

How common is psychosis?

The one year prevalence of non-organic psychosis is 4.5 per 1000 community residents.[1] Most new cases arise in men under 30 and women under 35, but a second peak occurs in people over 60 years. Psychotic symptoms had a 10.1% prevalence in a non-demented community population over 85 years.[2] Schizophrenia has a one year prevalence of 3.3 per 1000 people, and a lifetime morbidity risk of 7.2 per 1000 people.[w1] Independent of known associations with migration and ethnic origin, increased economic inequality in areas of high deprivation also predicts a higher incidence of schizophrenia.[3] Some people who become depressed (one in five of us over a lifetime) also develop hallucinations and delusions, related to and "congruent with" their low mood.

Bipolar affective disorder has a lifetime prevalence of 1.3-1.6%,[4] and it is characterised by episodes of psychosis during both high ("manic") and low (depressive) relapses. The misuse of substances, notably cannabis,[5] raises the prevalence of psychotic symptoms further—substance misuse partly explains the 10 times higher prevalence of psychosis in prison populations.[1] Psychosis occurs frequently in all forms of dementia including Parkinson's disease. Other causes of organic psychoses are neurological disorders (epilepsy, head injury, haemorrhage, infarction, infection, and tumours) and most causes of delirium.

Altogether, therefore, acute psychosis is one of the most common psychiatric emergencies. There are explanations of psychotic "symptoms" other than the biomedical model of this review; medicalising psychosis as "an illness like any other" increases both public pessimism about outcome and the stigma attached to people with psychosis.[6]

How do I diagnose psychosis?

Diagnosis is based on clinical findings. No confirmatory laboratory or radiological tests are available, although investigations are needed to rule out organic psychosis. More information is gained on first

Terminology

- Psychosis: A disorder of thinking and perception, where typically people do not ascribe their symptoms to a mental disorder
- Positive symptoms: Positive psychopathology (delusions, hallucinations, thought disorder)
- Negative symptoms: Symptoms that define the deficit state—what is not there (box 2)
- Delusion: A false, unshakeable belief out of keeping with the patient's educational, cultural, and social background; it is held with extraordinary conviction and subjective certainty
- Hallucination: A sensory perception experienced in the absence of a real stimulus; voices (the most common modality) are experienced as originating from outside the person and have the full force of real perception
- Schizophrenia: Psychosis that develops a chronic course. A minimum of one clear symptom (box 1) or two less clear symptoms (boxes 1 and 2) must be present for most of the time for one month or more
- Prodrome: A definable period before the emergence of psychotic symptoms during which functioning becomes impaired
- Mania: The "high" relapses of bipolar affective disorder; hypomania is elevated mood without psychotic symptoms

assessment than at any subsequent time: even a few days' antipsychotic treatment can reduce the strength of delusions, and patients learn quickly that disclosing too many symptoms can have implications for the drugs they are prescribed or their liberty.

History

Carefully defining the psychotic processes clarifies their nature. Patients' trust can be gained by recording presenting complaints first and listening empathically to their accounts of troubling symptoms. Open questions ("How have things been for you lately?") should be followed by progressively more closed questions ("Do you think something funny has been going on? Have you heard unusual noises or voices? Could someone be behind this?"). Patients rarely complain of negative symptoms (box 2), but they may have lost ambitions at school or work and social networks and activities may have been curtailed. Three core mood symptoms—mood, energy, and interest or pleasure—are reduced in depression and raised in manic states. The coexistence of psychosis and major alterations in mood may indicate bipolar or schizoaffective disorders.[4]

Many other aspects of the patient's history determine diagnosis and management:

Box 1 | Positive psychotic symptoms

Clear symptoms (one or more needed for a diagnosis of schizophrenia)

Paranoid delusion: Any delusion that refers back to the self—in practice, most are persecutory delusions. Grandiose delusions (such as special powers or missions) occur in schizophrenia and bipolar affective disorder

Delusions of thought interference: Delusions that others can hear, read, insert, or steal the patient's thoughts

Passivity phenomena: Delusional beliefs or perceptions that others can control the patient's will, limb movements, bodily functions, or feelings

Thought echo: The patient hears their own thoughts spoken aloud

Third person auditory hallucinations (voices speaking about the patient): These may include a running commentary on the patient's actions; these are common in non-affective psychoses

Less clear symptoms (one or more needed for a diagnosis of schizophrenia)

Hallucinations in any modality without clear affective content

Second person auditory hallucinations (voices speaking to the patient): These may include command hallucinations ("run out the door"); these are common in depression, where they are demotivating or abusive ("you're useless")

Thought disorder: Breaks in the train of thought (thought block), excessive attention to unnecessary detail (overinclusive thinking), and difficulties in abstract thinking (for example, cannot explain proverbs or common sayings)

Box 2 | Negative psychotic symptoms (less clear symptoms; on their own, at least two of these symptoms are needed to diagnose schizophrenia)

Apathy (disinterest) manifested as blunted affect

Emotional withdrawal: flat affect

Odd or incongruous affect (for example, the patient smiles when recounting sad events, and vice versa)

Lack of attention to appearance or personal hygiene

Poor rapport: reduced verbal and non-verbal communication (for example, eye contact)

Lack of spontaneity and flow of conversation

- Symptoms in other systems, especially neurological and endocrine systems
- Past psychiatric symptoms, health service contacts, and treatments
- Medical history and medication history; these should be supplemented with a physical examination
- Family history of mental illness and suicide
- Alcohol and substance misuse. Use of cannabis increases the risk of psychosis in people predisposed to its effects[5]
- Allergies and adverse drug reactions, such as the extrapyramidal side effects of antipsychotics. These comprise early effects (akathesia and dystonic reactions), rare but fatal effects (neuroleptic malignant syndrome), and late and disabling effects (tardive dyskinesia).

Mental state examination

The primary diagnosis may be revised weeks or years later (box 3), and thorough documentation improves diagnostic accuracy now and later. The patient's general appearance and behaviour may indicate overarousal and hostility (as a result of positive symptoms) or irritability suggestive of elevated mood. Other motor signs (catatonia and negativism) are rare in Western settings. Altered consciousness is highly unusual in non-organic psychoses—intermittent clouding indicates delirium and this or other impairments require urgent medical investigation.

Speech will be disorganised if thought disorder is present (box 1), and with predominant negative symptoms (box 2) conversation will be stilted and difficult. Random changes of the subject (loosening of associations) and new words (neologisms) are best written down verbatim. Fast or pressured speech suggests mania. Mood should be noted as normal, depressed, or elevated. Affect, the outward expression of mood, is unlikely to be normal in these patients: flat affect may be the most obvious sign of negative symptoms, but there may be others (box 2). An anxious or perplexed affect may impact on actual behaviour.

Suicidality (thoughts, intentions, actions) must always be assessed by asking questions like, "Have the voices suggested suicide?" Other abnormalities of thought (obsessions, overvalued ideas) and perception (illusions, misinterpretations) are common. Cognitive impairment, tested at the bedside, can present in the

early stages of psychosis, but gross abnormalities may alert the clinician to learning disability or organic pathology. Concentration is subjectively normal (patient unaware) but objectively impaired (for example, the patient cannot recite the months of the year backwards). Insight can change considerably over the course of a psychotic illness and its treatment.

Collateral history

Taking a collateral history is the third core component of assessments. Incomplete information can be gained from patients who are paranoid, and perhaps lack insight. Family and friends may have noticed them behaving strangely—responding to hallucinations or testing their delusions. Taking collateral details after clinical assessment is an opportunity to test the working diagnosis. The patient's family will clarify whether some beliefs are culturally sanctioned and are not therefore delusional. Collateral history may identify a prodrome or negative symptoms (box 2) as the main focus of carers' concerns. Insidious onset and prolonged psychotic symptoms during the first two years are both strong predictors of poorer long term outcome.[7] If no prodrome has occurred and the episode has had a short duration (fewer than two weeks), with a clear stressful precipitant, the diagnosis might be one of an acute and transient psychotic disorder (box 3), which is best treated with support and without drugs. If the quality of collateral history is poor (for example, the patient is brought in by the police or is homeless), seek out anyone with prior contact before concluding your assessment. Integrate new information into further assessments of your patient: disclosure improves as a trusting relationship develops.

Box 3 | Psychiatric differential diagnosis

First episode psychosis or acute psychosis: includes drug induced, acute, and transient psychotic disorder; schizophrenia; and other non-affective psychotic disorders
Bipolar affective disorder: manic or depressed episode
Schizoaffective disorder
Severe depressive episode with psychotic features
Delusional disorder
Post-traumatic stress disorder
Obsessive compulsive disorder
Schizotypal or paranoid personality disorder
Asperger's syndrome
Attention deficit hyperactivity disorder

Table 1 | Investigation of acute psychosis

Test	Comments
Urine	
Urine drug screen	For illegal (cannabis, amphetamines, cocaine) and legal (alcohol and benzodiazepines) drugs; this is an essential investigation even in the most unlikely patients
Pregnancy test	Implications for future management, including the choice of medication and child care; female patients may have been exploited before admission
Blood tests	
Full blood count	Rules out anaemia; a raised white blood cell count suggests infection, but may be low in patients taking clozapine; high mean corpuscular volume can be caused by alcohol misuse, hypothyroidism, or folate deficiency
Urea and electrolytes	Identifies dehydration, renal impairment, and electrolyte imbalances—as precipitants or side effects
Random glucose	Raised glucose suggests diabetes—such a finding has major implications for the future prescription of antipsychotics; establish fasting plasma glucose and cholesterol with lipid profile (box 6)
Liver function tests	Alcohol misuse (raised γ glutamate transferase), systemic illness, or the effects of intravenous drug misuse; most intravenous drug users are positive for hepatitis C antibodies
Other blood tests	Calcium, thyroid hormones, and cortisol if endocrine symptoms; HIV testing in high risk cases
Electrophysiological	
Electrocardiograph	A 12 lead electrocardiograph helps to rule out ischaemic heart disease in older age groups and conduction abnormalities at any age; most antipsychotic drugs are cautioned in cardiac illness
Electroencephalogram	Temporal lobe epilepsy has a characteristic aura followed by complex auditory and visual hallucinations; interactions between epilepsy and psychoses require specialist investigation and advice[8]
Radiological	
Brain imaging	Computed tomography is used, but magnetic resonance imaging shows more subtle changes; either test is indicated by neurological symptoms or atypical presentations; functional and volume magnetic resonance imaging studies are for research purposes only at this time[9]

What else could it be?

Investigations (table 1) are led by positive physical findings that suggest organic causes or comorbidities. Patients need to be given the results as soon as they are known. This reduces anxiety and paranoia, and it prevents excessive preoccupation with physical health. If the patient has organic psychosis, treat the underlying condition and unless the patient has epilepsy[8] consider symptomatic short term treatment of the psychotic symptoms. If the underlying condition cannot be cured (for example, Alzheimer's dementia), consider giving low dose antipsychotics, but be aware that the benefits of these drugs in this situation may be outweighed by their adverse effects.[w2] An identified physical cause is best treated in a general hospital with support from psychiatrists. Even in agitated patients who lack insight into their bizarre behaviour, mental health law allows for compulsory treatment of the mental disorder only, and physical treatments (antibiotics, intravenous fluids, surgery) cannot be forced on patients under this legislation.

From this point on, I will consider only psychiatric diagnoses. The first three diagnoses listed in box 3 should be treated in the same way because they are all a "first episode." Decisions to prescribe mood stabilisers are usually made during subsequent episodes of bipolar affective disorder and schizoaffective disorder.[4 10] Of the remaining diagnoses (box 3), depression is the most common and easily treated,[11] and like all affective psychoses has a relatively good prognosis.[12] Delusional disorder is a persistent, non-organic, non-affective psychotic disorder, without protracted hallucinations or negative symptoms. Post-traumatic stress disorder and obsessive compulsive disorder have prominent anxiety symptoms, driven by understandable (non-psychotic) processes. The last three possibilities are lifelong disorders, identified

by collateral history. All can have episodes of psychosis, but residual disabilities of the underlying disorder persist beyond the treatment episode.

Which treatment setting?

Non-organic psychoses are best treated by mental health services in the least restrictive setting. Even with sophisticated community services, more than 70% of patients with a first episode of psychosis are admitted to psychiatric hospital. Open discussion can achieve consensual admission. Patients with psychosis who decline further treatment are assessed under mental health legislation on the grounds of danger to self (suicide, unsafe behaviours, exploitation by others) or danger to others (overarousal, risk of acting on delusions, potential harm to others). In England and Wales, the Mental Health Act (1983) requires two independent doctors and an approved social worker to agree on involuntary committal to a psychiatric hospital. Psychosis is a disruptive and distressing experience; inpatient units need to be adapted to support rather than confront, and seclusion or "intensive care units" should be considered as last resorts. Accreditation for acute inpatient mental health services (www.rcpsych.ac.uk) sets out minimum and desirable standards. Older adults, adolescents, and postpartum women have complex needs and require admission to specialist units. Early detection, perhaps through specialised teams with allied strategies (public education, liaison with schools and general practitioners) have the potential to reduce admissions.[13]

Table 2 | Drugs shown to be effective for acute psychosis by Cochrane reviews

Treatment	Minimum effective daily dose[9]	Reference	Comments (18 Cochrane reviews)
Typical antipsychotics			
Chlorpromazine	200 mg	Thornley et al[w7]	Better than placebo, but weight gain, extrapyramidal side effects, and sedation are prominent
Haloperidol	2 mg	Joy et al[w8]	Same efficacy as other typical antipsychotics but tolerated poorly; should not be used as control drug in trials
Pimozide	4 mg	Sultana et al[w9]	Same efficacy as other typical antipsychotics; no added benefit in delusional disorder
Perphenazine	—	Hartung et al[w10]	Same efficacy as other typical antipsychotics, but side effects probably under-reported by older studies
Sulpiride	400 mg	Soares et al[w11]	Same efficacy as other typical antipsychotics; side effects probably less frequent (18 small studies)
Trifluoperazine	10 mg	Marques et al[w12]	Same efficacy as other antipsychotics but extrapyramidal side effects similar to typical antipsychotics
Zuclopenthixol acetate	—	Gibson et al[w13]	Similar to haloperidol in efficacy and side effects, including sedation
Atypical antipsychotics			
Amisulpride	400 mg	Mota-Neto et al[w14]	Better efficacy and fewer side effects than typical antipsychotics; no better than risperidone
Aripiprazole	15 mg	El Sayeh et al[w15]	Not clearly different from other antipsychotics; fewer side effects on the heart and prolactin
Clozapine	250-550 mg	Wahlbeck et al[w16]	Convincing evidence of better efficacy over all other drugs (31 studies)
Olanzapine	5 mg	Duggan et al[w17]	No better than typical antipsychotics; fewer extrapyramidal side effects but greater weight gain than others
Quetiapine	150 mg	Srisurapanont et al[w18]	Similar to typical antipsychotics; fewer extrapyramidal side effects but sedative prominent
Risperidone	2 mg	Gilbody et al[w19]	Efficacy similar to amisulpride and olanzapine; not as good as clozapine
Risperidone depot	—	Hosalli et al[w20]	Better tolerated than placebo; probably useful in confirmed non-adherence
Zotepine	75 mg	DeSilva et al[w21]	More efficacious than typical antipsychotics and fewer extrapyramidal side effects
Antipsychotics + antidepressants			
For depression	Varies	Whitehead et al[w22]	Not enough evidence to refute their use or to support current practice
For negative symptoms	Varies	Rummel et al[w23]	Five studies (n=190); equivocal support for the addition of antidepressant
Other treatments			
Chinese herbal medicine	Varies	Rathbone et al[w24]	Never effective on their own; only one trial reported possible benefits

How do I manage a patient with acute psychosis?

Pharmacotherapy

One antipsychotic drug should be given at the lowest effective dose (table 2). It is safer to achieve sedation with benzodiazepines (as required), rather than antipsychotics. Choosing a highly sedating antipsychotic drug at this stage can impede discharge later (box 4). All hospitals and trusts have clear guidelines on rapid tranquillisation of patients with psychosis; these monitor for side effects and complications.[10] Typical antipsychotic drugs cause extrapyramidal side effects and

Box 4 | Management principles in acute psychosis

- Identify and change environmental factors[16] that perpetuate psychotic symptoms
- Listening to the patient's relatives is the best way to catch relapse earlier and identify harmful components of the ward environment
- Consult with an early intervention team at the beginning of treatment, not the end
- Test for, and persuade or intervene against, persistent substance misuse
- For patients with mania use benzodiazepines with antipsychotics as adjuncts; for patients with schizophrenia use antipsychotics with benzodiazepines as adjuncts
- Document frequency of nursing observations (blood pressure, temperature, pulse rate)
- Monitor fluid balance (input and output) and body weight daily in acutely ill patients
- When (not if) new symptoms occur, consider unwanted drug effects
- Physical examination is an essential part of regular clinical review
- Start psychosocial interventions at the earliest opportunity
- Allied professionals—housing workers, peer workers (former patients who work with health professionals in early intervention teams), and other support workers—are invaluable in facilitating early discharge and preventing readmission

Box 5 | Definition of metabolic syndrome[15]

- Three or more of the following (the first three findings are the most common)
- Abdominal obesity: waist circumference >102 cm in men, >88 cm in women
- Hypertension: blood pressure ≥130/85 mm Hg
- Serum triglycerides >1.69 mmol/l
- Fasting plasma glucose >6.1 mmol/l
- Serum high density lipoprotein <1.04 mmol/l in men, <1.29 mmol/l in women

raised prolactin (which causes sexual dysfunction and galactorrhoea) at therapeutic doses, as do most atypical antipsychotic drugs at higher doses. Typical antipsychotics have greater anticholinergic (dry mouth, tachycardia, urinary obstruction, etc) and antiadrenergic (postural hypotension, impotence) effects. All antipsychotics cause sedation to varying degrees and lower seizure threshold, especially clozapine. All antipsychotics, except for ziprasidone (not available in the UK) and aripiprazole,[10] cause weight gain and impaired glucose tolerance. Typical and atypical antipsychotics probably increase the risk of thromboembolic disease equally.[w3] Amisulpride and aripiprazole offer relatively lower risks of QTc prolongation on electrocardiography.[10] Interactions between subclinical effects on the cardiovascular system and the metabolic syndrome are possible beyond the first episode, so body weight and blood monitoring (table 1) should be repeated in three months, then yearly. The metabolic syndrome (box 5) is often seen in people with chronic psychoses given their unhealthy life styles,[14] and is linked to all antipsychotics, most notably atypicals.

Table 3 | Range of psychosocial interventions in psychosis

Example	Reference	Evidence from systematic reviews
Strong evidence		
Cognitive behaviour therapy	Penn et al,[17] Kingdon and Turkington[18]	Promising, underevaluated intervention[w25]; reduces symptoms[w26]
Family interventions	Penn et al,[17] Garety et al[23]	Have a role in relapse prevention; improve many other outcomes[w26]
Psychoeducational interventions	Penn et al[17]	Any intervention reduced relapse rates at 9 and 18 months[w27]
Supported employment	Crowther et al[w28]	No evidence of efficacy of prevocational training: recommend to place the patient first, then train[w28]
Good evidence		
Nidotherapy: manipulation of the environment	Tyrer and Bajaj[16]	—
Cognitive behaviour therapy early after admission	Tarrier et al[w29]	—
Vocational rehabilitation	RANZCP guidelines	—
Healthy living groups	McCreadie[14]	—
Music therapy during acute admission	Talwar et al[w30]	—
Interventions for the community (not patients)	Wolff et al[w31]	—
No evidence currently		
Compliance therapy	McIntosh et al[w32]	One trial met criteria but failed to show benefits in outcomes[w32]
Life skills training	Robertson et al[w33]	Based on two randomised trials, no benefits shown[w33]
Motivational interviewing for substance misuse	Jeffery et al[w34]	No benefit of integrated treatment for comorbid substance misuse[w34]

Patient's perspective

I find that having psychosis is horrible, but unless I'm acting strangely no one knows and I'm expected to seem normal. I hear very distressing voices all the time and occasionally get weird delusions and see things in a way that other people say are not real. I've been admitted to hospital and sectioned several times because of it.

When I first arrive at the hospital I hate the fact that my liberty has been curtailed, but after a while it's a relief not to have the responsibility of trying to take care of myself. I know it's time to go home when I start resenting the hospital again.

Finding the right medication can be difficult—I have the misfortune of getting terrible side effects from many of them. However, by trial and error I have eventually found something that doesn't make me too uncomfortable and makes the voices quieter. Now of course I'm reluctant to try the new ones in case they cause problems or don't work properly.

The most complicated thing in day to day life is trying to work out what sensory input is real without having to keep asking people. I also have to try to make sure I don't get tired or stressed.

Janey

The syndrome comprises a combination of insulin resistance and its physiological consequences—for example, a 20% increase in major coronary events over 10 years.[15] Waist circumference (box 5) seems to be the best predictor of metabolic syndrome.

One meta-analysis reported that five of seven atypical drugs had significant advantages over typical antipsychotics in the treatment of acute psychosis; quetiapine and aripiprazole did not achieve significance (table 2).[w4] The advantages of atypical drugs over typical drugs in the longer term are more marginal,[w5] and one non-industry trial found no additional benefits of atypicals (excluding clozapine) for either patient preference or quality of life markers.[w6]

A multicentre trial of haloperidol and olanzepine measured brain volume in seven primary "magnetic resonance imaging regions of interest" over two years.[9] Patients in the haloperidol group lost grey matter volume, mostly during the first 12 weeks of treatment, and these losses correlated with negative clinical outcomes. They could not conclude that haloperidol failed to prevent volume loss, or caused it, or that olanzepine halted loss.[9] The choice of antipsychotic drug is best made in consultation with the patient, in the context of psychosocial interventions that promote recovery. Clozapine should be considered earlier in patients who do not respond to two antipsychotics, but many patients decline clozapine because weekly blood tests are needed to detect early signs of a low white blood cell count. Fish oils are a worthwhile option, but only as an addition to standard treatment.[10]

Psychosocial

Given the adverse effects of antipsychotic drugs, nonpharmacological treatments (table 3) should be more widely available, but this seems to be limited by ward

SUMMARY POINTS

Acute psychosis is a common psychiatric emergency that may present to health services other than mental health practitioners

Comorbidities are common and increase with age—monitoring for hidden physical and other mental disorders is essential

Patients with a first episode (even those with substance misuse) are best treated by specialist multidisciplinary early intervention teams that deliver psychosocial interventions as essential adjuncts to drugs

Treatment achieves complete remission, without relapse, in 25% of patients

In general, a low dose, well tolerated atypical antipsychotic drug will increase medium term adherence and reduce future relapses

culture and lack of suitably trained staff. Evidence supporting psychological interventions is strong enough to recommend their use in all treatment guidelines.[17] Cognitive behaviour therapy reduces the impact of symptoms,[w25] and family interventions prevent relapse.[w26] Both achieve an agreed, individualised plan to recognise relapse earlier. Practitioners of cognitive behaviour therapy have challenged traditional assumptions about delusions to gain a shared understanding of the origins of beliefs and explore alternative explanations: disturbances in intrinsic thinking and subcultural beliefs (ideas common in the young adult age group most likely to develop non-organic psychosis) may underlie delusions.[18]

Family interventions are best carried out early in the course of illness, while the patient still lives at home. Family interventions have the advantage of benefits for other family members and greater acceptability and than drug treatments (drop-out rates are lower). Psychoeducational interventions are brief, cheap, and require less staff training. Most patients with a first episode of psychosis have misused substances; abstinence improves their prognosis, and if they continue to abstain their outcomes at 18 months are better than those for patients who have never misused substances.[19]

Box 6 | Relapse and recovery after a psychotic episode

Relapse at one year[20]

Antipsychotic drug treatment but no psychosocial interventions

40% of all patients; 62% if in a stressful environment

27% of patients with a first episode of psychosis; 48% of patients with five or more previous episodes

Placebo treatment and no psychosocial interventions

61% of patients with a first episode of psychosis; 87% of patients with five or more previous episodes

Antipsychotic drug treatment and psychosocial intervention(s)

19% with family education; 20% after social skills training; 0% with both interventions; 38% for controls (antipsychotic drug treatment alone). A total of 103 patients from stressful environments were studied

Recovery (defined as global assessment of function >60) at 15-25 years' follow-up[7]

37.8% of patients with schizophrenia

Role of the general practitioner in diagnosis and treatment

Psychosis subtly changes how patients you know well interact with you

The extent of symptoms and changes in social functioning determine the diagnosis and predict recovery

First episode psychosis is a useful diagnosis in itself; time will determine the final diagnosis

Key risks are suicide and aggression, especially in over-aroused patients bewildered by their symptoms

All patients with new psychosis need mental health referral; patients at risk should be referred that day

Joint care monitors physical health needs and the effects of drugs, and looks out for deteriorations in function and other signs of relapse

What happens next?

Box 6 shows possible outcomes of standard care, on the basis of two reviews.[7,20] Between 30% and 60% of patients with a first episode of psychosis receiving interventions from UK community mental health teams had a good outcome at three years.[12] Among those patients who do not respond to treatment initially, 16% have a good recovery at 15 years.[7] These patients, who have a complex long term illness and a high risk of relapse, are best managed in specialist settings. Early intervention teams provide phase specific treatments, integrated case management, and cognitive behaviour therapy interventions.[13] A randomised clinical trial has shown the value of integrated care in patients with a first episode of psychosis.[21] Patterns of symptoms change over time and a modular form of cognitive behaviour therapy meets people's needs most effectively. Early intervention teams reduce the duration of untreated psychosis.[13,22] Despite early misgivings among researchers, duration of untreated psychosis is a remediable, independent predictor of worse outcome.[w35] Social functioning and vocational outcomes at 18 months are significantly improved by early intervention teams.[23]

Excess deaths including suicide are seen in all patients with a first episode of psychosis,[7] but a fall in suicide rates in people with schizophrenia has been attributed to reduced access to lethal methods and better treatment (from early intervention teams).[24] The evidence supporting early intervention teams is better than that justifying the current practice of standard care.[w36] One key research question remains: "Do specialised early intervention teams offer improvements in outcome over and above those provided by phase-specific interventions alone?"[w36]

After recovery (full or partial), a single antipsychotic drug is given prophylactically, usually at a lower dose than that needed for treating acute illness (table 2). Treatment of a first episode is recommended for one year, followed by gradual cessation in asymptomatic patients at low risk. Risk of relapse is indicated by residual disability, family history of psychosis, or current substance misuse. Patients at risk and those with multiple psychotic episodes require longer prophylaxis.

Patients with a history of violence need more intensive case management to reduce risk, and this may include prolonged medication under supervision. Given the high personal and health service costs of relapse, decisions about discontinuation and prophylaxis should be agreed with early intervention teams. Several early models for intervention teams have been described, with varying resource implications.[25] The subject of treatment resistant psychosis has been discussed by others.[10 26] Multiple coordinated interventions at adequate doses with verified adherence, including clozapine as a third line drug, must be applied before "treatment failure" is confirmed.

Conclusions

Early intervention teams accommodate diagnostic uncertainty in some patients, and for most patients coordinated interventions maximise functioning and prevent relapse. These teams and their advocates (users, carers, and people outside the health professions) have brought enthusiasm and innovation to a large number of patients in whom "cure" was previously the exception rather than the rule. We still await the "perfect" antipsychotic drug, where improved efficacy is not undermined by disabling, initially hidden, side effects. Trials of cognitive behaviour therapy and family interventions, with more sophisticated treatments than used heretofore, will identify specific components that improve recovery and reduce relapse further.

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Additional educational resources

Resources for healthcare professionals

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Resources for patients

If necessary, search within these sites for "early intervention" and "psychosis"

Early Prevention Psychosis Intervention Centre, Australia (www.eppic.org.au/)—This site sets out the gold standard for early intervention

National Institute for Mental Health in England (www.nimhe.csip.org.uk/)—Highlights patient care and carer information and other educational issues. The largest grouping in the Knowledge Community resource (http://kc.csip.org.uk/) is for psychosis. This links to NICE treatment guidelines on psychosis

Initiative to Reduce the Impact of Schizophrenia (www.iris-initiative.org.uk/)—This site offers a range of toolkits, protocols, and checklists to ensure best practice

Prevention and Early Intervention Programme for Psychosis (www.pepp.ca/)

Rethink, carers' and service users' organisation (www.rethink.org/)—Sets out practical advice, with excellent links; for example, the Early Psychosis Declaration, 2004

Royal College of Psychiatrists (www.rcpsych.ac.uk)—*Help is at Hand* leaflets and *Accreditation for Acute Inpatient Mental Health Services* are free to download

Psychosis sucks (www.psychosissucks.ca/)—This Canadian site has a wealth of plain English information for people with psychosis, with multiple translations

Schizophrenia (www.schizophrenia.com/)—An extensive, regularly updated news archive with interesting blogs

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